index 2005 subject

Antimicrobials

Antimicrobial Contaminant Removal by Multistage Slow Sand Filtration
Stephen J. Rooklidge, J. Ronald Miner, Tarek A. Kassim, and Peter O. Nelson 97:12:92

Asset Management

Current Issues: Establishing Service Levels—the Driving Force of a Utility
Tony P. Urquhart and David C. Sklar 97:1:22

Field Report: Condition-based Asset Management Strengthens Bottom Line
Brian J. Mergelas 97:2:48

Assessment and Renewal of Water Distribution Systems
Neil S. Grigg 97:2:58

Bacteria

Assessment of a Distribution System Nitrification Critical Threshold Concept
Katarina D.M. Pintar, William B. Anderson, Robin M. Slawson, E. Franklyn Smith, and Peter M. Huck 97:7:116

Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90

Fixed-bed Biological Treatment of Perchlorate-contaminated Drinking Water
Jess C. Brown, Ryan D. Anderson, Joon H. Min, Lina Boulos, David Prasifka, and Graham J.G. Juby 97:9:70

Bioterrorism

Expanded Summary: Modeling Intentional Distribution System Contamination and Detection
Timothy P. Allmann and Kenneth H. Carlson ... 97:1:58

Early Warning Surveillance of Drinking Water by Photoionization/Mass Spectrometry
Jennifer Calles, Randy Gottler, Matthew Evans, and Jack Syage 97:1:62

Carbon

Physicochemical Aspects of *Cryptosporidium* Surrogate Removal in Carbon Block Filtration
Boris L.T. Lau, Gregory W. Harrington, Marc A. Anderson, and Isabel Tejedor 97:2:92

Tailored GAC for the Effective Control of 2-Methylisoborneol
Julee A. Mackenzie, Matthew F. Tennant, and David W. Mazyck 97:6:76

Chemicals

Water Beat: USEPA Finalizes Second Contaminant Candidate List
Mark Scharfenaker 97:3:12

Comparison of Stannous Chloride and Phosphate for Lead Corrosion Control
Raymond M. Hozalski, Elizabeth Esbri-Amador, and Che Fei Chen 97:3:89

Expanded Summary: Real-time Detection of Intentional Chemical Contamination in the Distribution System
David Byer and Kenneth H. Carlson 97:7:130

Pharmaceuticals and EDCs in the US Water Industry—An Update
Erin M. Snyder, Richard C. Pleus, and Shane A. Snyder 97:11:32

Formation of Pb(IV) Oxides in Chlorinated Water
Darren A. Lytle and Michael R. Schock 97:11:102

Enhancing Calcium Carbonate Precipitation by Heterogeneous Nucleation During Chemical Softening
Kenneth L. Mercer, Yi-Pin Lin, and Philip C. Singer 97:12:116

Chloramines

Impact of Biomass on the Stability of HAAs and THMs in a Simulated Distribution System
Hélène Baribeau, Stuart W. Krasner, Russell Chinn, and Philip C. Singer 97:2:69

Association Between Residual Chlorine Loss and HAA Reduction in Distribution Systems
Vanessa L. Speight and Philip C. Singer 97:2:82

Assessment of a Distribution System Nitrification Critical Threshold Concept
Katarina D.M. Pintar, William B. Anderson, Robin M. Slawson, E. Franklyn Smith, and Peter M. Huck 97:7:116

Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90

Have Utilities Switched to Chloramines?
Chad J. Seidel, Michael J. McGuire, R. Scott Summers, and Steve Via 97:10:87

Nitrification Modeling in Chloraminated Distribution Systems
Suibing Liu, James S. Taylor, A.A. Randall, and John D. Dietz 97:10:98

Committee Connection

Management Division Seeks to Provide Tools, Guidance to Help Managers Achieve Their Goals and Objectives
George Raftelis 97:1:41

AWWA's Customer Service Committee Promotes Excellence in Customer Service as a Key to Efficient Operations
Donald Schlenger 97:2:40

AWWA's Rates and Charges Committee Provides Guidance in Maintaining Financial Self-sufficiency
J. Rowe McKinley 97:3:46

AWWA's Finance, Accounting and Management Controls Committee Tackles Broad Financial Issues
Theodore C. Schlette 97:4:68

index 2005 subject

Antimicrobials

Antimicrobial Contaminant Removal by Multistage Slow Sand Filtration
Stephen J. Rooklidge, J. Ronald Miner, Tarek A. Kassim, and Peter O. Nelson 97:12:92

Asset Management

Current Issues: Establishing Service Levels—the Driving Force of a Utility
Tony P. Urquhart and David C. Sklar 97:1:22

Field Report: Condition-based Asset Management Strengthens Bottom Line
Brian J. Mergelas 97:2:48

Assessment and Renewal of Water Distribution Systems
Neil S. Grigg 97:2:58

Bacteria

Assessment of a Distribution System Nitrification Critical Threshold Concept
Katarina D.M. Pintar, William B. Anderson, Robin M. Slawson, E. Franklyn Smith, and Peter M. Huck 97:7:116

Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90

Fixed-bed Biological Treatment of Perchlorate-contaminated Drinking Water
Jess C. Brown, Ryan D. Anderson, Joon H. Min, Lina Boulos, David Prasifka, and Graham J.G. Juby 97:9:70

Bioterrorism

Expanded Summary: Modeling Intentional Distribution System Contamination and Detection
Timothy P. Allmann and Kenneth H. Carlson ... 97:1:58

Early Warning Surveillance of Drinking Water by Photoionization/Mass Spectrometry
Jennifer Calles, Randy Gottler, Matthew Evans, and Jack Syage 97:1:62

Carbon

Physicochemical Aspects of *Cryptosporidium* Surrogate Removal in Carbon Block Filtration
Boris L.T. Lau, Gregory W. Harrington, Marc A. Anderson, and Isabel Tejedor 97:2:92

Tailored GAC for the Effective Control of 2-Methylisoborneol
Julee A. Mackenzie, Matthew F. Tennant, and David W. Mazyck 97:6:76

Chemicals

Water Beat: USEPA Finalizes Second Contaminant Candidate List
Mark Scharfenaker 97:3:12

Comparison of Stannous Chloride and Phosphate for Lead Corrosion Control
Raymond M. Hozalski, Elizabeth Esbri-Amador, and Che Fei Chen 97:3:89

Expanded Summary: Real-time Detection of Intentional Chemical Contamination in the Distribution System
David Byer and Kenneth H. Carlson 97:7:130

Pharmaceuticals and EDCs in the US Water Industry—An Update
Erin M. Snyder, Richard C. Pleus, and Shane A. Snyder 97:11:32

Formation of Pb(IV) Oxides in Chlorinated Water
Darren A. Lytle and Michael R. Schock 97:11:102

Enhancing Calcium Carbonate Precipitation by Heterogeneous Nucleation During Chemical Softening
Kenneth L. Mercer, Yi-Pin Lin, and Philip C. Singer 97:12:116

Chloramines

Impact of Biomass on the Stability of HAAs and THMs in a Simulated Distribution System
Hélène Baribeau, Stuart W. Krasner, Russell Chinn, and Philip C. Singer 97:2:69

Association Between Residual Chlorine Loss and HAA Reduction in Distribution Systems
Vanessa L. Speight and Philip C. Singer 97:2:82

Assessment of a Distribution System Nitrification Critical Threshold Concept
Katarina D.M. Pintar, William B. Anderson, Robin M. Slawson, E. Franklyn Smith, and Peter M. Huck 97:7:116

Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90

Have Utilities Switched to Chloramines?
Chad J. Seidel, Michael J. McGuire, R. Scott Summers, and Steve Via 97:10:87

Nitrification Modeling in Chloraminated Distribution Systems
Suibing Liu, James S. Taylor, A.A. Randall, and John D. Dietz 97:10:98

Committee Connection

Management Division Seeks to Provide Tools, Guidance to Help Managers Achieve Their Goals and Objectives
George Raftelis 97:1:41

AWWA's Customer Service Committee Promotes Excellence in Customer Service as a Key to Efficient Operations
Donald Schlenger 97:2:40

AWWA's Rates and Charges Committee Provides Guidance in Maintaining Financial Self-sufficiency
J. Rowe McKinley 97:3:46

AWWA's Finance, Accounting and Management Controls Committee Tackles Broad Financial Issues
Theodore C. Schlette 97:4:68

AWWA's Security Committee: Striving to Enhance Water Industry Security
Thomas J. Linville, Michael Gritzuk, Jack Jacobs, John McLaughlin, Jack W. Moyer, Alan Roberson, and Kenneth A. Thompson 97:5:72
Building and Sustaining Human Capital
Arlene Post and Sean Breen 97:6:44
AWWA's Health, Safety, and Environment Committee Helps Organizations and Utilities Understand and Improve Their Safety Culture
Jill E. Schwarzwalder 97:7:44
AWWA's Management Development Committee: Providing Training Opportunities for Utility Managers
Louis Eddy 97:8:32
The AWWA Management Division Strives to Help Managers Achieve Their Goals and Objectives Through a Variety of Tools
Kay Kutchins 97:9:36
(See also:Erratum . . . . . 97:11:14*)*
Strategic Management for Utilities: Experience of the Birmingham Water Works Board
Gerald Wexelbaum and Mac Underwood . . . 97:10:46
Helping Utility Managers Address Tomorrow's Competitive Pressures
Harold Smith and Barry Buchanan 97:11:44
Management Division Spotlight: Public Affairs as a Strategic Management Function
Patricia A. Tennyson and Karen P. Snyder . . . 97:12:40

Compliance

Water Beat: USEPA Finalizes Second Contaminant Candidate List
Mark Scharfenaker 97:3:12
Triggers behind the Regulatory Development Triad
J. Alan Roberson 97:3:66
Water Beat: Data Gains Push Perchlorate Nearer to Regulatory Determination
Mark Scharfenaker 97:5:15
Optimizing System Operations
Larry Jentgen, Steve Conrad, and Tony Lee . . . 97:8:58
Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90
Evaluation of Loose Deposits In Distribution Systems Through Unidirectional Flushing
Annie Carriere, Vincent Gauthier, Raymond Desjardins, and Benoit Barbeau 97:9:82
Use of Riverbank Filtration for IESWTR Compliance
William Gollnitz, Jennifer L. Clancy, Brock McEwen, and Stephen C. Garner 97:12:64

Contamination

Expanded Summary: Modeling Intentional Distribution System Contamination and Detection
Timothy P. Allmann and Kenneth H. Carlson . . . 97:1:58
Early Warning Surveillance of Drinking Water by Photoionization/Mass Spectrometry
Jennifer Calles, Randy Gottler, Matthew Evans, and Jack Syage 97:1:62
A Simple Model for Quantifying *Cryptosporidium* Transport, Dilution, and Potential Risk in Reservoirs
Jason P. Antenucci, Justin D. Brookes, and Matthew R. Hipsey 97:1:86
Water Beat: USEPA Finalizes Second Contaminant Candidate List
Mark Scharfenaker 97:3:12
Expanded Summary: Real-time Detection of Intentional Chemical Contamination in the Distribution System
David Byer and Kenneth H. Carlson 97:7:130
Linking Water Quality to the Watershed: Developing Tools for Source Water Protection
John M. Peckenham, Catherine V. Schmitt, Jeffrey L. McNelly, and Andrews L. Tolman . . 97:9:62
Antimicrobial Contaminant Removal by Multistage Slow Sand Filtration
Stephen J. Rooklidge, J. Ronald Miner, Tarek A. Kassim, and Peter O. Nelson 97:12:92

Corrosion

Corrosion and Corrosion Control of Iron Pipe: 75 Years of Research
Richard W. Bonds, Lyle Barnard M., A. Michael Horton, and Gene L. Oliver 97:6:88
Red Water Release In Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93
Effect of Bacterial Sulfate Reducation on Iron-corrosion Scales
Darren A. Lytle, Tammie L. Gerke, and J. Barry Maynard 97:10:109
Replacing Polyphosphate With Silicate to Solve Lead, Copper, and Source Water Iron Problems
Michael R. Schock, Darren Al. Lytle, Anne M. Sandvig, Jonathan Clement, and Stephen M. Harmon . . . 97:11:84

Cost Benefit Analyses

Supply from the Sea: Exploring Ocean Desalination
Jeff Szytel 97:2:54
Assessment and Renewal of Water Distribution Systems
Neil S. Grigg 97:2:58

Costs

Water Beat CWSRF Cut Shuffles Infrastructure Funding Deck
Mark Scharfenaker 97:1:14
The Value of Water: What It Means, Why It's Important, and How Water Utility Managers Can Use It
Robert S. Raucher 97:4:90
Census Data Shed Light on US Water and Wastewater Costs
Scott J. Rubin 97:4:99
Measuring Fairness: Assessing the Equity of Municipal Water Rates
Manuel P. Teodoro 97:4:111
Field Report: Phoenix Tests the Waters With DBO Alternative Project Delivery
Timothy J. White, William R. Jones, Mark A. Waer, Troy Hayes, and John Quarendon 97:5:90
Secrets to a Successful CIS Implementation
Melanie Rettie 97:6:72
Optimizing System Operations
Larry Jentgen, Steve Conrad, and Tony Lee . . . 97:8:58

Current Issues:

Establishing Service Levels—the Driving Force of a Utility
Tony P. Urquhart and David C. Sklar 97:1:22

Funding Large Rural Water Infrastructure Projects
Stephanie White, George Oamek, and Jennifer Martinek 97:4:30
Breaking Organizational Silos: Removing Barriers to Exceptional Performance
Rodney K. Dell 97:6:34
Groundwater Storage and Sustainable Stream Flows
Robert H. Anderson and Robert Pancoast 97:7:30
Pharmaceuticals and EDCs in the US Water Industry—An Update
Erin M. Snyder, Richard C. Pleus, and Shane A. Snyder 97:11:32
The Piasa Creek Watershed Project—Cleaning up the Muddy Mississippi
Mark W. LeChevallier 97:12:30

Cryptosporidium
A Simple Model for Quantifying *Cryptosporidium* Transport, Dilution, and Potential Risk in Reservoirs
Jason P. Antenucci, Justin D. Brookes, and Matthew R. Hipsey 97:1:86
Physicochemical Aspects of *Cryptosporidium* Surrogate Removal in Carbon Block Filtration
Boris L.T. Lau, Gregory W. Harrington, Marc A. Anderson, and Isabel Tejedor 97:2:92
A Comparison of Conventional and Biological Filter Performance Emphasizing *Cryptosporidium* and Microsphere Removal
James E. Amburgey, Appiah Amirtharajah, Marjorie T. York, Barbara M. Brouckaert, Neal C. Spivey, and Michael J. Arrowood . . . 97:12:77
A Review of *Cryptosporidium* Removal by Granular Media Filtration
Monica B. Emelko, Peter M. Huck, and Bradley M. Coffey 97:12:101

Desalination
Supply From the Sea: Exploring Ocean Desalination
Jeff Szytel 97:2:54

Disinfection
Have Utilities Switched to Chloramines?
Chad J. Seidel, Michael J. McGuire, R. Scott Summers, and Steve Via 97:10:87

Disinfection By-products
Pipe Section Reactor to Evaluate Chlorine-wall Reaction
Francis A. Digiano and Weidong Zhang 97:1:74
Association Between Residual Chlorine Loss and HAA Reduction in Distribution Systems
Vanessa L. Speight and Philip C. Singer 97:2:82

Distribution Systems
Expanded Summary: Modeling Intentional Distribution System Contamination and Detection
Timothy P. Allmann and Kenneth H. Carlson . . . 97:1:58
Assessment and Renewal of Water Distribution Systems
Neil S. Grigg 97:2:58
Field Report: Water Plant Retrofit Eliminates Dwindling Capacity
Bob Domkowski 97:4:76
Biostability Characterization in a Full-scale Hybrid NF/RO Treatment System
Seungkwan Hong, Isabel C. Escobar, Julie Hershey-Pyle, Colin Hobbs, and Jaeweon Cho 97:5:101
Hydraulic Transient Guidelines for Protecting Water Distribution Systems
Paul F. Boulos, Bryan W. Karney, Don J. Wood, and Srinivasa Lingireddy 97:5:111
Developing a Phased Distribution System Security Enhancement Program
Brian M. Murphy and Gregory J. Kirmeyer . . . 97:7:93
Numerical Methods for Modeling Transient Flow in Distribution Systems
Don J. Wood, Srinivasa Lingireddy, Paul F. Boulos, Bryan W. Karney, and David L. McPherson . . . 97:7:104
Assessment of a Distribution System Nitrification Critical Threshold Concept
Katarina D.M. Pintar, William B. Anderson, Robin M. Slawson, E. Franklyn Smith, and Peter M. Huck 97:7:116
Evaluation of Loose Deposits In Distribution Systems Through Unidirectional Flushing
Annie Carriere, Vincent Gauthier, Raymond Desjardins, and Benoit Barbeau 97:9:82
Red Water Release In Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93
Nitrification Modeling in Chloraminated Distribution Systems
Suibing Liu, James S. Taylor, A.A. Randall, and John D. Dietz 97:10:98

Ductile Iron Pipe
Comparison of Stannous Chloride and Phosphate for Lead Corrosion Control
Raymond M. Hozalski, Elizabeth Esbri-Amador, and Che Fei Chen 97:3:89
Corrosion and Corrosion Control of Iron Pipe: 75 Years of Research
Richard W. Bonds, Lyle M. Barnard , A. Michael Horton, and Gene L. Oliver 97:6:88

Emergency Planning
Field Report: Cellular-based SCADA Shines During Hurricane Charley
Jerry Krabill 97:3:62
Tabletop Exercises: How You Can Use Them to Prepare for Water System Incidents
Jack Moyer 97:8:52

Environment
Water Beat: CWSRF Cut Shuffles Infrastructure Funding Deck
Mark Scharfenaker 97:1:14
Linking Water Quality to the Watershed: Developing Tools for Source Water Protection
John M. Peckenham, Catherine V. Schmitt, Jeffrey L. McNelly, and Andrews L. Tolman . . 97:9:62

Errata
Committee Connection 97:11:14

Field Report
Condition-based Asset Management Strengthens Bottom Line
Brian J. Mergelas 97:2:48
Cellular-Based SCADA Shines During Hurricane Charley
Jerry Krabill 97:3:62

Water Plant Retrofit Eliminates Dwindling Capacity
Bob Domkowski 97:4:76
Phoenix Tests the Waters With DBO Alternative Project Delivery
Timothy J. White, William R. Jones, Mark A. Waer, Troy Hayes, and John Quarendon 97:5:90
UF Membranes Squeeze High Performance and Quality Into Small Plant
Taigon Worthen and Paul Schuler 97:6:56
Underground Is Top of Mind: Annual Reviews Prove Vital to Maintaining Infrastructure
Tanya Rouce 97:7:60
City of Pomona Takes a Forward-looking Approach to Leveraging Local Water Resources
Jim Taylor 97:9:50
Planning for the Future; AMR Installation Enhances Economic Development
Brandon Segrest 97:10:52
A Sacrificial Anode Retrofit Program for Existing Cast-iron Distribution Water Mains
Danny J. Klopfer and Jeff Schramuk 97:12:50

Filtration

Physicochemical Aspects of *Cryptosporidium* Surrogate Removal in Carbon Block Filtration
Boris L.T. Lau, Gregory W. Harrington, Marc A. Anderson, and Isabel Tejedor 97:2:92
Bench-scale Evaluation of Critical Flux and TMP in Low-pressure Membrane Filtration
Kevin Young-june Choi and Brian A. Dempsey 97:7:134
A Comparison of Conventional and Biological Filter Performance Emphasizing *Cryptosporidium* and Microsphere Removal
James E. Amburgey, Appiah Amirtharajah, Marjorie T. York, Barbara M. Brouckaert, Neal C. Spivey, and Michael J. Arrowood ... 97:12:77
Antimicrobial Contaminant Removal by Multistage Slow Sand Filtration
Stephen J. Rooklidge, J. Ronald Miner, Tarek A. Kassim, and Peter O. Nelson 97:12:92
Minneapolis Water Works Ultrafiltration Plant Gets Off to a Big Start
Jonathan Pressdee, Shahin Rezania, and Chad Hill 97:12:56
Use of Riverbank Filtration for IESWTR Compliance
William Gollnitz, Jennifer L. Clancy, Brock McEwen, and Stephen C. Garner 97:12:64

Flow

Hydraulic Transient Guidelines for Protecting Water Distribution Systems
Paul F. Boulos, Bryan W. Karney, Don J. Wood, and Srinivasa Lingireddy 97:5:111
Numerical Methods for Modeling Transient Flow in Distribution Systems
Don J. Wood, Srinivasa Lingireddy, Paul F. Boulos, Bryan W. Karney, and David L. McPherson ... 97:7:104

Flushing

Evaluation of Loose Deposits In Distribution Systems Through Unidirectional Flushing
Annie Carriere, Vincent Gauthier, Raymond Desjardins, and Benoit Barbeau 97:9:82

Fouling

Biostability Characterization in a Full-scale Hybrid NF/RO Treatment System
Seungkwan Hong, Isabel C. Escobar, Julie Hershey-Pyle, Colin Hobbs, and Jaeweon Cho 97:5:101
Bench-scale Evaluation of Critical Flux and TMP in Low-pressure Membrane Filtration
Kevin Young-june Choi and Brian A. Dempsey 97:7:134
Committee Report: Recent Advances and Research Needs in Membrane Fouling
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:79

Granular Activated Carbon

Lignite Versus Bituminous GAC for Biofiltration—A Case Study
Issam Najm, Michael Kennedy, and William Naylor 97:1:94
Tailored GAC for the Effective Control of 2-Methylisoborneol
Julee A. Mackenzie, Matthew F. Tennant, and David W. Mazyck 97:6:76

Groundwater

Current Issues: Groundwater Storage and Sustainable Stream Flows
Robert H. Anderson and Robert Pancoast 97:7:30
Field Report: City of Pomona Takes a Forward-looking Approach to Leveraging Local Water Resources
Jim Taylor 97:9:50
Fixed-bed Biological Treatment of Perchlorate-contaminated Drinking Water
Jess C. Brown, Ryan D. Anderson, Joon H. Min, Lina Boulos, David Prasifka, and Graham J.G. Juby 97:9:70
Red Water Release In Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93
Use of Riverbank Filtration for IESWTR Compliance
William Gollnitz, Jennifer L. Clancy, Brock McEwen, and Stephen C. Garner 97:12:64

Haloacetic Acids

Impact of Biomass on the Stability of HAAs and THMs in a Simulated Distribution System
Helene Baribeau, Stuart W. Krasner, Russell Chinn, and Philip C. Singer 97:2:69
Association Between Residual Chlorine Loss and HAA Reduction in Distribution Systems
Vanessa L. Speight and Philip C. Singer 97:2:82
Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90
Effects of EBCT and Water Temperature on HAA Removal Using BAC
Hongwei Wu and Yuefeng F. Xie 97:11:94

Hydraulics

Hydraulic Transient Guidelines for Protecting Water Distribution Systems
Paul F. Boulos, Bryan W. Karney, Don J. Wood, and Srinivasa Lingireddy 97:5:111

Numerical Methods for Modeling Transient Flow in Distribution Systems
Don J. Wood, Srinivasa Lingireddy, Paul F. Boulos, Bryan W. Karney, and David L. McPherson . . . 97:7:104

Instrumentation

Early Warning Surveillance of Drinking Water By Photoionization/Mass Spectrometry
Jennifer Calles, Randy Gottler, Matthew Evans, and Jack Syage 97:1:62
Field Report: Cellular-based SCADA Shines During Hurricane Charley
Jerry Krabill 97:3:62

Lead

Comparison of Stannous Chloride and Phosphate for Lead Corrosion Control
Raymond M. Hozalski, Elizabeth Esbri-Amador, and Che Fei Chen 97:3:89
Lead Leaching From Inline Brass Devices: A Critical Evaluation of the Existing Standard
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:66
Formation of Pb(IV)Oxides in Chlorinated Water
Darren A. Lytle and Michael R. Schock 97:11:102

Law & Water

Utah Developer Must Shoulder a Portion of Water Infrastructure Costs; *Bradshaw* v. *Wilkinson Water Co.*, Supreme Court of Utah, May 4, 2004 (AWW/03/J.-$10) 97:1:28
Beneficial Use Must Be Shown to Change New Mexico Water Rights; *Hanson* v. *Turney*, Court of Appeals of New Mexico, Apr. 1, 2004 (AWW/01/J.-$10) 97:1:28
Water Quality Standards for Ephemeral Tributaries Upheld in New Mexico; *Regents of University of Cal.* v. *Commission*, Court of Appeals of New Mexico, Apr. 28, 2004 (AWW/02/J.-$10) 97:1:30
County Board Has Implied Authority to Charge Fees for Wastewater Discharge; *Agra Resources* v. *Freeborn County*, Court of Appeals of Minnesota, July 13, 2004 (AWW/02/F.-$10) 97:2:26
Charging Vacant Lots for Access to Water and Sewer Services Deemed Unconstitutional; *Carrillo* v. *City of Ocean Shores*, Court of Appeals of Washington, July 13, 2004 (AWW/03/F.-$10) 97:2:26
Altering a Water Right's Point of Diversion Changes the Right Itself; *Trail's End* v. *Div. of Water Resources*, Supreme Court of Colorado, June 14, 2004 (AWW/01/F.-$10) 97:2:28
Georgia Storm Water Management Charge Is Not a Tax; *McLeod* v. *Columbia County*, Supreme Court of Georgia, June 28, 2004, Reconsideration denied July 29, 2004 (AWW/03/M.-$10) 97:3:43
Michigan Laws Cannot Restrict Enforcement of CWA; *U.S.* v. *Rapanos*, US Court of Appeals for the Sixth Circuit, July 26, 2004 (AWW/02/M.-copies not available because of decision's length; see page 31 of February 2004 Journal for earlier decision in case) 97:3:43
Missouri Water Commission Can Hear Environmental Appeal; Mo. *Coalition for Environment* v. *Herrmann*, Supreme Court of Missouri, July 1, 2004 (AWW/01/M.-$10) 97:3:44
Tribe Challenges Permit to Construct Virginia Reservoir; *The Mattaponi Indian Tribe* v. *Com.*, Court of Appeals of Virginia, Aug. 31, 2004 (AWW/02/A.-$10) 97:4:33
Nonprofit Group Cannot Sue to Enforce WPCA; *Save the Lake* v. *Hillsboro*, Court of Appeals of Ohio, Aug. 23, 2004 (AWW/01/A.-$10) 97:4:33
Changed Location of Water Rights Use Results in Forfeiture; *Hannigan* v. *Hinton*, Court of Appeals of Oregon, Sept. 15, 2004 (AWW/03/A-$10) 97:4:34
Pennsylvania Utility Must Make Refunds; *Emporium Water Co.* v. *Public Utility Com'n.*, Commonwealth Court of Pennsylvania, Oct. 5, 2004 (AWW/03/My.-$10) 97:5:34
Law Regulating Pollution From Hog Production Declared Invalid; *Worth County Friends* v. *Worth County*, Supreme Court of Iowa, Oct. 6, 2004 (AWW/02/My.-$10) 97:5:34
Criminal Conviction of Texas Water Operator Upheld; *McCelvey* v. *State*, Court of Appeals of Texas, Aug. 26, 2004, Rehearing overruled Sept. 30, 2004 (Copies not available because of decision's length) 97:5:36
Water Availability Fee Is Not a Utah Impact Fee; *Board of Trustees* v. *Keystone Conversions*, Supreme Court of Utah, Oct.19, 2004 (AWW/02/Ju.-$10) 97:6:42
NPDES Noncompliance Triggers CWA Citizen-suit Provisions; *American Canoe* v. *City of Louisa Water*, U.S. Court of Appeals for the Sixth Circuit, Nov. 1, 2002 (AWW/03/Ju.-$10) 97:6:42
Michigan Wetlands Are Under Jurisdiction of Corps of Engineers; *Carabell* v. *U.S. Army Corps of Engineers*, U.S. Court of Appeals for the Sixth Circuit, Sept. 27, 2004 (AWW/01/Ju.-$10) 97:6:43
Pennsylvania Court Affirms Permit to Fill Wetlands; *Pa. Trout* v. *Dept. of Envir. Protection*, Commonwealth Court of Pennsylvania, Dec. 7, 2004 (Copies not available because of the decision's length.) 97:7:36
Petition to Detach Property From Missouri Water District Denied; *Horn* v. *Public Water Supply Dist. No. 8*, Missouri Court of Appeals, Jan. 21, 2005 (AWW/03/Jy.-$10) 97:7:36
USEPA Agents' Wastewater Sampling Did Not Violate Fourth Amendment; *Riverdale Mills Corp.* v. *Pimpare*, U.S. Court of Appeals for the First Circuit, Dec. 22, 2004 (AWW/02/Jy.-$10) 97:7:38
Claim Under CWA Denied Because No Spillage Occurred; *Tetra Technologies* v. *Kansas City Southern*, U.S. Court of Appeals for the Fifth Circuit, Jan. 5, 2005 (AWW/01/Au.-$10) 97:8:28
Colorado Ranch Must Replace 100% of Groundwater Withdrawals; *City of Aurora* v. *Colorado State Engineers*, Supreme Court of Colorado, Jan. 18, 2005, as modified on denial of rehearing, Feb. 14, 2006 (Copies not available because of decision's length.) 97:8:28
Groundwater User Not Liable Unless Surface Water Effects Shown; *Spear T Ranch Inc.* v. *Knaub*, Supreme Court of Nebraska, Jan. 21, 2005 (Copies not available because of decision's length.) 97:8:30
Social and Economic Benefits Justify Degradation of Georgia Lake Water; *Hughey* v. *Gwinnett County*, Supreme Court of Georgia, Nov. 23, 2004 (AWW/01/S.-$10) 97:9:28

Operation of Dams Constitutes Discharge under CWA; S.D. *Warren* v. *Bd. of Environmental Pro.*, Supreme Judicial Court of Maine, Feb. 15, 2005 (AWW/02/S.-$10) 97:9:28
USEPA Rule on Issuance of Discharge Permits Violates CWA; *Waterkeeper Alliance Inc.* v. *USEPA*, US Court of Appeals for the Second Circuit, Feb. 25, 2005 (copies not available because of decision's length.) 97:9:30
Pennsylvania Utility Can Recover Terrorism-related Security Costs; *Popowsky* v. *Public Utility Comm.*, Commonwealth Court of Pennsylvania, Nov. 8, 2004, publication ordered Mar. 1, 2005 (AWW/03/O.–$10) 97:10:38
Providing Water Service Does Not Expand Utility's Franchise Area; *Chesapeake Ranch Water* v. *Board of Com'rs.*, US Court of Appeals for the Fourth Circuit, Mar. 16, 2005 (AWW/01/O.–$10) 97:10:38
Funding Method to Upgrade Utility Infrastructure Denied; *Popowsky* v. *Public Utility Com'n.*, Commonwealth Court of Pennsylvania, Mar. 14, 2005 (Copies not available because of decision's length.) 97:10:40
City Not Liable for Damage From Heavy Rainfall; *Bettinger* v. *City of Springfield*, Missouri Court of Appeals, Mar. 28, 2005 (AWW/01/N.–$10) 97:11:38
Consideration of Economic Factors Possible in Reissuing NPDES Permits; *City of Burbank* v. *State Water Resources*, Supreme Court of California, Apr. 4, 2005 (Copies not available because of decision's length.) 97:11:38
City's Laws Cannot Disclaim Liability for Water Breaks; *Elkjer* v. *City of Rapid City*, Supreme Court of South Dakota, Mar. 30, 2005 (AWW/02/N.–$10) . . . 97:11:40
Utility Must Pay Commercial Property Tax Rate; *Salem & Beverly Water* v. *Board of Assessors*, Appeals Court of Massachusetts, Apr. 5, 2005 (AWW/10/D.–$10) 97:12:32
State's Issuance of Wastewater Discharge Permit Upheld; *Crutchfield* v. *State Water Control Bd.*, Court of Appeals of Virginia, May 3, 2005 (AWW/03/D.–$10) 97:12:32
Terminating Water Service Violates Tenant's Rights; *Golden* v. *City of Columbus*, US Court of Appeals for the Sixth Circuit, Apr. 18, 2005 (Copies not available because of decision's length.) 97:12:34

Management

Current Issues: Establishing Service Levels—the Driving Force of a Utility
Tony P. Urquhart and David C. Sklar 97:1:22
How Healthy Are Your Utility's Financial Fundamentals?
Howard W. Hoover and George A. Raftelis . . . 97:4:80
The Value of Water: What It Means, Why It's Important, and How Water Utility Managers Can Use It
Robert S. Raucher 97:4:90
Management Tools at Your Fingertips: Tapping the Power of the Web
Brian M. Balchunas and Charles E. Hucks 97:5:94
Current Issues: Breaking Organizational Silos: Removing Barriers to Exceptional Performance
Rodney K. Dell 97:6:34
Personal Tools for Becoming a More Successful Engineer
Sam Irrinki 97:6:68
Optimizing System Operations
Larry Jentgen, Steve Conrad, and Tony Lee . . . 97:8:58
A Standard Efficiency Metric for Evaluating the Performance of Community Water Systems
Jeffrey W. Rogers and Garrick E. Louis 97:10:76
Authentic Intelligence: Automated Decision-making Through GTSM
John (Woody) Wodraska and Jack Hampson . 97:11:75
Ten Steps to a Winning SLA
Tony Johnson 97:11:80

Market Outlook

How Big Is the "Water Business"?
Steve Maxwell 97:1:25
Key Growth Drivers and Trends in the Water Business
Steve Maxwell 97:3:24
Water is Cheap—Ridiculously Cheap!
Steve Maxwell 97:6:38
2005 Update on Water Industry Consolidation Trends
Steve Maxwell 97:10:34

Market Research

Census Data Shed Light on US Water and Wastewater Costs
Scott J. Rubin 97:4:99

Membranes

Biostability Characterization in a Full-scale Hybrid NF/RO Treatment System
Seungkwan Hong, Isabel C. Escobar, Julie Hershey-Pyle, Colin Hobbs, and Jaeweon Cho 97:5:101
Field Report: UF Membranes Squeeze High Performance and Quality Into Small Plant
Taigon Worthen and Paul Schuler 97:6:56
Bench-scale Evaluation of Critical Flux and TMP in Low-pressure Membrane Filtration
Kevin Young-june Choi and Brian A. Dempsey 97:7:134
Committee Report: Recent Advances and Research Needs in Membrane Fouling
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:79

Modeling

Expanded Summary: Modeling Intentional Distribution System Contamination and Detection
Timothy P. Allmann and Kenneth H. Carlson . . . 97:1:58
Pipe Section Reactor to Evaluate Chlorine-wall Reaction
Francis A. Digiano and Weidong Zhang 97:1:74
A Simple Model for Quantifying Cryptosporidium Transport, Dilution, and Potential Risk in Reservoirs
Jason P. Antenucci, Justin D. Brookes, and Matthew R. Hipsey 97:1:86
Evaluation of Water Mixing Characteristics in Distribution System Storage Tanks
Ferdous Mahmood, James G. Pimblett, Nigel O. Grace, and Walter M. Grayman 97:3:74
Numerical Methods for Modeling Transient Flow in Distribution Systems
Don J. Wood, Srinivasa Lingireddy, Paul F. Boulos, Bryan W. Karney, and David L. McPherson . . . 97:7:104

Nanofiltration

Biostability Characterization in a Full-scale Hybrid NF/RO Treatment System
Seungkwan Hong, Isabel C. Escobar, Julie Hershey-Pyle, Colin Hobbs, and Jaeweon Cho 97:5:101

Committee Report: Recent Advances and Research Needs in Membrane Fouling
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:79

Nitrification

Assessment of a Distribution System Nitrification Critical Threshold Concept
Katarina D.M. Pintar, William B. Anderson, Robin M. Slawson, E. Franklyn Smith, and Peter M. Huck 97:7:116
Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90
Nitrification Modeling in Chloraminated Distribution Systems
Suibing Liu, James S. Taylor, A.A. Randall, and John D. Dietz 97:10:98

Official Notices

ANSI/AWWA D110-04, Standard for Wire- and Strand-wound Circular, Prestressed Concrete Water Tanks 97:1:109
ANSI/AWWA B102-04, Standard for Manganese Greensand for Filters; ANSI/AWWA B451-04, Standard for Poly(Diallyldimethylammonium Chloride); ANSI/AWWA C402-05, Standard for Asbestos–Cement Transmission Pipe, 18 In. Through 42 In. (450 mm through 1,050 mm), for Water Supply Service; ANSI/AWWA C907-04, Standard for Injection-Molded Polyvinyl Chloride (PVC) Pressure Fittings, 4 In. to 12 In. for Water Distribution; ANSI/AWWA D104-04, Standard for Automatically Controlled, Impressed-current Cathodic Protection for the Interior of Steel Water Tanks 97:2:110
ANSI/AWWA C507-05, Standard for Ball Valves, Sizes 6 In. Through 48 In. (150 mm Through 1,200 mm); ANSI/AWWA C513-05, Standard for Open-channel, Fabricated-Metal Slide Gates and Open-channel, Fabricated Metal Weir Gates 97:3:109
ANSI/AWWA B302-05, Standard for Ammonium Sulfate; ANSI/AWWA B303-05, Standard for Sodium Chlorite; ANSI/AWWA B511-05, Standard for Potassium Hydroxide; ANSI/AWWA B550-05, Standard for Calcium Chloride; ANSI/AWWA B601-05, Standard for Sodium Metabisulfite; ANSI/AWWA C603-05, Standard for Installation of Asbestos–Cement Pressure Pipe; ANSI/AWWA C550-05, Standard for Protective Interior Coatings for Valves and Hydrants; ANSI/AWWA C707-05, Standard for Encoder-type Remote-Registration Systems for Cold-Water Meters 97:4:133
ANSI/AWWA C206-03, Standard for Field Welding of Steel Water Pipe; ANSI/AWWA C651-05, Standard for Disinfecting Water Mains; ANSI/AWWA C708-05, Standard for Cold-Water Meters—Multijet Type; ANSI/AWWA C713-05, Standard for Cold-Water Meters—Fluidic Oscillator Type; ANSI/AWWA C800-05, Standard for Underground Service Line Valves and Fittings 97:5:157
ANSI/AWWA C903-05, Standard for Polyethylene-Aluminum-Polyethylene & Cross-linked Polyethylene-Aluminum-Cross-linked Polyethylene Composite Pressure Pipes ½ in. (12mm) Through 2 in. (50 mm), for Water Service; ANSI/AWWA C502-05, Standard for Dry-Barrel Fire Hydrants 97:8:113
ANSI/AWWA B407-05, Standard for Liquid Ferric Chloride; ANSI/AWWA C706-96 (R05), Standard for Direct Reading, Remote-Registration Systems for Cold-Water Meters; ANSI/AWWA B600-05, Standard for Powdered Activated Carbon 97:9:110

Organic Carbon

Biostability Characterization in a Full-scale Hybrid NF/RO Treatment System
Seungkwan Hong, Isabel C. Escobar, Julie Hershey-Pyle, Colin Hobbs, and Jaeweon Cho 97:5:101
The Impact of Filtrate Turbidity on UV_{254} and $SUVA_{254}$ Determinations
Tanju Karanfil, Ilke Erdogan, and Mark Schlautman 97:5:125
Tailored GAC for the Effective Control of 2-Methylisoborneol
Julee A. Mackenzie, Matthew F. Tennant, and David W. Mazyck 97:6:76

Personnel Management

Managing the Coming Brain Drain
Myron A. Olstein 97:6:60
Tapping Into the Knowledge of Frontline Employees
Karen H. Cooper, Ann Dettmer, and Rubi Leeds 97:8:47

Perspectives

Toward a Lead-free Public Water Supply: The Course Is Set But the Pace Must Quicken
Gary A. Burlingame and Jeff Swertfeger 97:9:42

Pipes

Pipe Section Reactor to Evaluate Chlorine-wall Reaction
Francis A. Digiano and Weidong Zhang 97:1:74
Field Report: Condition-based Asset Management Strengthens Bottom Line
Brian J. Mergelas 97:2:48
Corrosion and Corrosion Control of Iron Pipe: 75 Years of Research
Richard W. Bonds, Lyle Barnard M., A. Michael Horton, and Gene L. Oliver 97:6:88
Field Report: Underground Is Top of Mind: Annual Reviews Prove Vital to Maintaining Infrastructure
Tanya Rouce 97:7:60
Effect of Bacterial Sulfate Reduction on Iron-corrosion Scales
Darren A. Lytle, Tammie L. Gerke, and J. Barry Maynard 97:10:109

Planning

Creating a Strategic Communication Plan That Gathers No Dust
Patricia A. Tennyson and Kristina Ray 97:1:48
Field Report: Phoenix Tests the Waters With DBO Alternative Project Delivery
Timothy J. White, William R. Jones, Mark A. Waer, Troy Hayes, and John Quarendon 97:5:90
Managing the Coming Brain Drain
Myron A. Olstein 97:6:60
Optimizing System Operations
Larry Jentgen, Steve Conrad, and Tony Lee . . . 97:8:58

Scenario Planning: A Tool to Manage Future Water Utility Uncertainty
Edward G. Means III, Roger Patrick, Lorena Ospina, and Nicole West 97:10:68

Pressure

Hydraulic Transient Guidelines for Protecting Water Distribution Systems
Paul F. Boulos, Bryan W. Karney, Don J. Wood, and Srinivasa Lingireddy 97:5:111
Numerical Methods for Modeling Transient Flow in Distribution Systems
Don J. Wood, Srinivasa Lingireddy, Paul F. Boulos, Bryan W. Karney, and David L. McPherson 97:7:104
Bench-scale Evaluation of Critical Flux and TMP in Low-pressure Membrane Filtration
Kevin Young-june Choi and Brian A. Dempsey 97:7:134

Productivity

Current Issues: Breaking Organizational Silos: Removing Barriers to Exceptional Performance
Rodney K. Dell 97:6:34
Personal Tools for Becoming a More Successful Engineer
Sam Irrinki 97:6:68
Secrets to a Successful CIS Implementation
Melanie Rettie 97:6:72
Authentic Intelligence: Automated Decision-making Through GTSM
John (Woody) Wodraska and Jack Hampson .. 97:11:75

Reactors

Pipe Section Reactor to Evaluate Chlorine-wall Reaction
Francis A. Digiano and Weidong Zhang 97:1:74
Fixed-bed Biological Treatment of Perchlorate-contaminated Drinking Water
Jess C. Brown, Ryan D. Anderson, Joon H. Min, Lina Boulos, David Prasifka, and Graham J.G. Juby 97:9:70

Red Water

Red Water Release In Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93

Regulations

Water Beat: USEPA Finalizes Second Contaminant Candidate List
Mark Scharfenaker 97:3:12
Triggers Behind the Regulatory Development Triad
J. Alan Roberson 97:3:66
Water Beat: Data Gains Push Perchlorate Nearer to Regulatory Determination
Mark Scharfenaker 97:5:15
Population Growth and Climate Change Will Pose Tough Challenges for Water Utilities
Edward G. Means III, Nicole West, and Roger Patrick 97:8:40
Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90
Replacing Polyphosphate With Silicate to Solve Lead, Copper, and Source Water Iron Problems
Michael R. Schock, Darren Al. Lytle, Anne M. Sandvig, Jonathan Clement, and Stephen M. Harmon 97:11:84
The Regulatory Horizon: Implications for Water Utilities
Edward G. Means III, Nicole West, and Roger Patrick 97:11:60
A Review of *Cryptosporidium* Removal by Granular Media Filtration
Monica B. Emelko, Peter M. Huck, and Bradley M. Coffey 97:12:101
Use of Riverbank Filtration for IESWTR Compliance
William Gollnitz, Jennifer L. Clancy, Brock McEwen, and Stephen C. Garner 97:12:64

Research

Committee Report: Recent Advances and Research Needs in Membrane Fouling
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:79

Residual Chlorine

Pipe Section Reactor to Evaluate Chlorine-wall Reaction
Francis A. Digiano and Weidong Zhang 97:1:74
Impact of Biomass on the Stability of HAAs and THMs in a Simulated Distribution System
Hélène Baribeau, Stuart W. Krasner, Russell Chinn, and Philip C. Singer 97:2:69
Association Between Residual Chlorine Loss and HAA Reduction in Distribution Systems
Vanessa L. Speight and Philip C. Singer 97:2:82
Assessment of a Distribution System Nitrification Critical Threshold Concept
Katarina D.M. Pintar, William B. Anderson, Robin M. Slawson, E. Franklyn Smith, and Peter M. Huck 97:7:116

Revenues

The Value of Water: What It Means, Why It's Important, and How Water Utility Managers Can Use It
Robert S. Raucher 97:4:90

Seawater

Supply From the Sea: Exploring Ocean Desalination
Jeff Szytel 97:2:54

Security

Expanded Summary: Modeling Intentional Distribution System Contamination and Detection
Timothy P. Allmann and Kenneth H. Carlson 97:1:58
Early Warning Surveillance of Drinking Water By Photoionization/Mass Spectrometry
Jennifer Calles, Randy Gottler, Matthew Evans, and Jack Syage 97:1:62
Water Beat: NDWAC Report Describes Infrastructure Security Road Map
Mark Scharfenaker 97:7:19
Developing a Phased Distribution System Security Enhancement Program
Brian M. Murphy and Gregory J. Kirmeyer ... 97:7:93

Sedimentation
A Simple Model for Quantifying *Cryptosporidium* Transport, Dilution, and Potential Risk in Reservoirs
Jason P. Antenucci, Justin D. Brookes, and Matthew R. Hipsey 97:1:86

Small Systems Helpdesk
Is Your Surface Water Plant Optimized?—Part 1
Dan L. Fraser and Joe Steiner 97:1:38
Is Your Surface Water Plant Optimized?—Part 2
Dan L. Fraser and Joe Steiner 97:2:34
The Principles of Risk Communication: Ignoring Them Can Be Hazardous to Your Health!
Michael W. Grimm 97:4:64

Sodium
Red Water Release in Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93

Softening
Enhancing Calcium Carbonate Precipitation by Heterogeneous Nucleation During Chemical Softening
Kenneth L. Mercer, Yi-Pin Lin, and Philip C. Singer 97:12:116

Source Water Protection
Linking Water Quality to the Watershed: Developing Tools for Source Water Protection
John M. Peckenham, Catherine V. Schmitt, Jeffrey L. McNelly, and Andrews L. Tolman 97:9:62

Standards
Lead Leaching From Inline Brass Devices: A Critical Evaluation of the Existing Standard
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:66

Statistical Analysis
Red Water Release in Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93

Storage Tanks
Association Between Residual Chlorine Loss and HAA Reduction in Distribution Systems
Vanessa L. Speight and Philip C. Singer 97:2:82
Evaluation of Water Mixing Characteristics in Distribution System Storage Tanks
Ferdous Mahmood, James G. Pimblett, Nigel O. Grace, and Walter M. Grayman 97:3:74

Strategic Planning
Creating a Strategic Communication Plan That Gathers No Dust
Patricia A. Tennyson and Kristina Ray 97:1:48
Assessment and Renewal of Water Distribution Systems
Neil S. Grigg 97:2:58
How Healthy Are Your Utility's Financial Fundamentals?
Howard W. Hoover and George A. Raftelis 97:4:80
Ten Primary Trends and Their Implications for Water Utilities
Edward G. Means III, Lorena Ospina, and Roger Patrick 97:7:64

Streams
Current Issues: Groundwater Storage and Sustainable Stream Flows
Robert H. Anderson and Robert Pancoast 97:7:30

Sulfates
Red Water Release In Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93

Surge
Hydraulic Transient Guidelines for Protecting Water Distribution Systems
Paul F. Boulos, Bryan W. Karney, Don J. Wood, and Srinivasa Lingireddy 97:5:111
Numerical Methods for Modeling Transient Flow in Distribution Systems
Don J. Wood, Srinivasa Lingireddy, Paul F. Boulos, Bryan W. Karney, and David L. McPherson 97:7:104

Sustainable Development
The Value of Water: What It Means, Why It's Important, and How Water Utility Managers Can Use It
Robert S. Raucher 97:4:90
Preserving Sustainable Water Supplies for Future Generations
Pamela P. Kenel and James C. Schlaman 97:7:78

Tech Talk
Essential Criteria for Selecting an Ultraviolet Disinfection System
Bertrand W. Dussert 97:7:52
Water Industry Realizing Benefits From GIS Applications
Geospatial Information and Technlology Association 97:11:56

Temperature
A Simple Model for Quantifying *Cryptosporidium* Transport, Dilution, and Potential Risk in Reservoirs
Jason P. Antenucci, Justin D. Brookes, and Matthew R. Hipsey 97:1:86
Evaluation of Water Mixing Characteristics in Distribution System Storage Tanks
Ferdous Mahmood, James G. Pimblett, Nigel O. Grace, and Walter M. Grayman 97:3:74
Red Water Release In Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93
Effects of EBCT and Water Temperature on HAA Removal Using BAC
Hongwei Wu and Yuefeng F. Xie 97:11:94

Testing
Physicochemical Aspects of *Cryptosporidium* Surrogate Removal in Carbon Block Filtration
Boris L.T. Lau, Gregory W. Harrington, Marc A. Anderson, and Isabel Tejedor 97:2:92

Bench-scale Evaluation of Critical Flux and TMP in Low-pressure Membrane Filtration
Kevin Young-june Choi and Brian A. Dempsey 97:7:134
Lead Leaching From Inline Brass Devices: A Critical Evaluation of the Existing Standard
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:66

Training

Tapping Into the Knowledge of Frontline Employees
Karen H. Cooper, Ann Dettmer, and Rubi Leeds 97:8:47
Tabletop Exercises: How You Can Use Them to Prepare for Water System Incidents
Jack Moyer 97:8:52

Treatment Plants

Lignite Versus Bituminous GAC for Biofiltration—A Case Study
Issam Najm, Michael Kennedy, and William Naylor 97:1:94
Field Report: Phoenix Tests the Waters With DBO Alternative Project Delivery
Timothy J. White, William R. Jones, Mark A. Waer, Troy Hayes, and John Quarendon 97:5:90
Field Report: UF Membranes Squeeze High Performance and Quality Into Small Plant
Taigon Worthen and Paul Schuler 97:6:56
Minneapolis Water Works Ultrafiltration Plant Gets Off to a Big Start
Jonathan Pressdee, Shahin Rezania, and Chad Hill 97:12:56

Trends

Ten Primary Trends and Their Implications for Water Utilities
Edward G. Means III, Lorena Ospina, and Roger Patrick 97:7:64
Population Growth and Climate Change Will Pose Tough Challenges for Water Utilities
Edward G. Means III, Nicole West, and Roger Patrick 97:8:40
Meeting Customer Expectations in a Fluid Utility Environment
Roger Patrick and Edward G. Means III 97:9:56
Scenario Planning: A Tool to Manage Future Water Utility Uncertainty
Edward G. Means III, Roger Patrick, Lorena Ospina, and Nicole West 97:10:68
State of the Industry Report 2005: A Guide for Good Health
Jon Runge and John Mann 97:10:58
Envisioning the Future Water Utility
Garrett P. Westerhoff, Hy Pomerance, and David Sklar 97:11:67
Authentic Intelligence: Automated Decision-making Through GTSM
John (Woody) Wodraska and Jack Hampson 97:11:75
Ten Steps to a Winning SLA
Tony Johnson 97:11:80
The Regulatory Horizon: Implications for Water Utilities
Edward G. Means III, Nicole West, and Roger Patrick 97:11:60

Trihalomethanes

Impact of Biomass on the Stability of HAAs and THMs in a Simulated Distribution System
Helene Baribeau, Stuart W. Krasner, Russell Chinn, and Philip C. Singer 97:2:69
Association Between Residual Chlorine Loss and HAA Reduction in Distribution Systems
Vanessa L. Speight and Philip C. Singer 97:2:82
Nitrification Potential Curves: A New Strategy for Nitrification Prevention
Kala K. Fleming, Gregory W. Harrington, and Daniel R. Noguera 97:8:90

Turbidity

The Impact of Filtrate Turbidity on UV_{254} and $SUVA_{254}$ Determinations
Tanju Karanfil, Ilke Erdogan, and Mark Schlautman 97:5:125

Ultrafiltration

Field Report:UF Membranes Squeeze High Performance and Quality Into Small Plant
Taigon Worthen and Paul Schuler 97:6:56
Bench-scale Evaluation of Critical Flux and TMP in Low-pressure Membrane Filtration
Kevin Young-june Choi and Brian A. Dempsey ...97:7:134
Committee Report: Recent Advances and Research Needs in Membrane Fouling
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:79
Minneapolis Water Works Ultrafiltration Plant Gets Off to a Big Start
Jonathan Pressdee, Shahin Rezania, and Chad Hill 97:12:56

Ultraviolet Disinfection

The Impact of Filtrate Turbidity on UV_{254} and $SUVA_{254}$ Determinations
Tanju Karanfil, Ilke Erdogan, and Mark Schlautman 97:5:125

Utilities

Field Report: Condition-based Asset Management Strengthens Bottom Line
Brian J. Mergelas 97:2:48
Field Report: Water Plant Retrofit Eliminates Dwindling Capacity
Bob Domkowski 97:4:76
How Healthy Are Your Utility's Financial Fundamentals?
Howard W. Hoover and George A. Raftelis ... 97:4:80
Census Data Shed Light on US Water and Wastewater Costs
Scott J. Rubin 97:4:99
Measuring Fairness: Assessing the Equity of Municipal Water Rates
Manuel P. Teodoro 97:4:111
Secrets to a Successful CIS Implementation
Melanie Rettie 97:6:72
Envisioning the Future Water Utility
Garrett P. Westerhoff, Hy Pomerance, and David Sklar 97:11:67
Replacing Polyphosphate With Silicate to Solve Lead, Copper, and Source Water Iron Problems
Michael R. Schock, Darren A. Lytle, Anne M. Sandvig, Jonathan Clement, and Stephen M. Harmon ... 97:11:84

The Regulatory Horizon: Implications for Water Utilities
Edward G. Means III, Nicole West, and Roger Patrick 97:11:60

Water Beat

CWSRF Cut Shuffles Infrastructure Funding Deck
Mark Scharfenaker 97:1:14
Water News Roundup
Mark Scharfenaker 97:2:14
USEPA Finalizes Second Contaminant Candidate List
Mark Scharfenaker 97:3:12
Water News Roundup
Mark Scharfenaker 97:4:15
Data Gains Push Perchlorate Nearer to Regulatory Determination
Mark Scharfenaker 97:5:15
Water News Roundup
Mark Scharfenaker 97:6:19
NDWAC Report Describes Infrastructure Security Road Map
Mark Scharfenaker 97:7:19
Water News Roundup
Mark Scharfenaker 97:8:17
Water Suppliers Applauding DWSRF Gain
Mark Scharfenaker 97:9:14
Water News Roundup
Mark Scharfenaker 97:10:15
Second UCMR Seeks Data on 26 Chemical Contaminants
Mark Scharfenaker 97:11:23
Water News Roundup
Mark Scharfenaker 97:12:14

Water Demand

Population Growth and Climate Change Will Pose Tough Challenges for Water Utilities
Edward G. Means III, Nicole West, and Roger Patrick 97:8:40
Field Report: City of Pomona Takes a Forward-looking Approach to Leveraging Local Water Resources
Jim Taylor 97:9:50

Water Policy

Supply From the Sea: Exploring Ocean Desalination
Jeff Szytel 97:2:54
Triggers Behind the Regulatory Development Triad
J. Alan Roberson 97:3:66
Measuring Fairness: Assessing the Equity of Municipal Water Rates
Manuel P. Teodoro 97:4:111

Water Quality

Evaluation of Water Mixing Characteristics in Distribution System Storage Tanks
Ferdous Mahmood, James G. Pimblett, Nigel O. Grace, and Walter M. Grayman 97:3:74
Field Report: UF Membranes Squeeze High Performance and Quality Into Small Plant
Taigon Worthen and Paul Schuler 97:6:56
Expanded Summary: Real-time Detection of Intentional Chemical Contamination in the Distribution System
David Byer and Kenneth H. Carlson 97:7:130
Linking Water Quality to the Watershed: Developing Tools for Source Water Protection
John M. Peckenham, Catherine V. Schmitt, Jeffrey L. McNelly, and Andrews L. Tolman 97:9:62
Evaluation of Loose Deposits In Distribution Systems Through Unidirectional Flushing
Annie Carriere, Vincent Gauthier, Raymond Desjardins, and Benoit Barbeau 97:9:82
Red Water Release In Drinking Water Distribution Systems
Syed A. Imran, John D. Dietz, Ginasiyo Mutoti, James S. Taylor, Andrew A. Randall, and C.D. Cooper 97:9:93
Effects of EBCT and Water Temperature on HAA Removal Using BAC
Hongwei Wu and Yuefeng F. Xie 97:11:94
A Comparison of Conventional and Biological Filter Performance Emphasizing *Cryptosporidium* and Microsphere Removal
James E. Amburgey, Appiah Amirtharajah, Marjorie T. York, Barbara M. Brouckaert, Neal C. Spivey, and Michael J. Arrowood ... 97:12:77
Enhancing Calcium Carbonate Precipitation by Heterogeneous Nucleation During Chemical Softening
Kenneth L. Mercer, Yi-Pin Lin, and Philip C. Singer 97:12:116

Water Rates

How Healthy Are Your Utility's Financial Fundamentals?
Howard W. Hoover and George A. Raftelis ... 97:4:80
The Value of Water: What It Means, Why It's Important, and How Water Utility Managers Can Use It
Robert S. Raucher 97:4:90
Census Data Shed Light on US Water and Wastewater Costs
Scott J. Rubin 97:4:99
Measuring Fairness: Assessing the Equity of Municipal Water Rates
Manuel P. Teodoro 97:4:111

Water Resources

Preserving Sustainable Water Supplies for Future Generations
Pamela P. Kenel and James C. Schlaman 97:7:78
Field Report: City of Pomona Takes a Forward-looking Approach to Leveraging Local Water Resources
Jim Taylor 97:9:50

Waterscape

Pathway to Excellence
Jack W. Hoffbuhr 97:1:6
The Power of Water
Jack W. Hoffbuhr 97:2:6
The Politics of Public Health
Jack W. Hoffbuhr 97:3:6
Whimsical Water
Jack W. Hoffbuhr 97:4:6
Incroyable!
Jack W. Hoffbuhr 97:5:6
Gray Is Good
Jack W. Hoffbuhr 97:6:6
Tinkering with the Future
Jack W. Hoffbuhr 97:7:6

Innovate or Stagnate?
Jack W. Hoffbuhr 97:8:6
Anxiety
Jack W. Hoffbuhr 97:9:6
Measuring Up
Jack W. Hoffbuhr 97:10:6
Jurassic Thinking
Jack W. Hoffbuhr 97:11:6
Katrina's True Cost
Jack W. Hoffbuhr 97:12:6

Water Supply

Preserving Sustainable Water Supplies for Future Generations
Pamela P. Kenel and James C. Schlaman 97:7:78
Population Growth and Climate Change Will Pose Tough Challenges for Water Utilities
Edward G. Means III, Nicole West, and Roger Patrick 97:8:40
Optimizing System Operations
Larry Jentgen, Steve Conrad, and Tony Lee . . . 97:8:58
Lead Leaching From Inline Brass Devices: A Critical Evaluation of the Existing Standard
Abhijeet Dudi, Michael Schock, Nestor Murray, and Marc Edwards 97:8:66
Linking Water Quality to the Watershed: Developing Tools for Source Water Protection
John M. Peckenham, Catherine V. Schmitt, Jeffrey L. McNelly, and Andrews L. Tolman 97:9:62
The Piasa Creek Watershed Project—Cleaning up the Muddy Mississippi
Mark W. LeChevallier 97:12:30

Watershed Management

Linking Water Quality to the Watershed: Developing Tools for Source Water Protection
John M. Peckenham, Catherine V. Schmitt, Jeffrey L. McNelly, and Andrews L. Tolman 97:9:62

Workforce Diversity

Workforce Diversity: Leveraging Diversity: A Customer Service Strategy
Stephanie Wood 97:1:47
Workforce Diversity: Spanning the Generation Gap in the Workplace
Stephanie Wood 97:5:86
Workforce Diversity: Building a Successful Workforce Diversity Program
Mark Stone 97:9:46

World Wide Web

Management Tools at Your Fingertips: Tapping the Power of the Web
Brian M. Balchunas and Charles E. Hucks 97:5:94

INTERNATIONAL SYMPOSIUM ON

Waterborne Pathogens

March 16–18, 2006 Atlanta, Georgia

The American Water Works Association invites you to take part in the **2006 International Symposium on Waterborne Pathogens.** Microbiological waterborne disease remains a significant concern for the worldwide water community, and whether it's investigating an emerging pathogen or developing a new control strategy, the challenges facing water supply professionals, public health professionals, or regulators are daunting. The fourth in a series of symposia addressing waterborne pathogens, this event will provide a comprehensive forum for the exchange of up-to-the-minute information and cutting-edge ideas relating to this critical public health issue.

Don't miss your chance to attend this important event!

To register please visit www.awwa.org/conferences, or contact Customer Service at 303.926.7337.

American Water Works Association

The Authoritative Resource on Safe Water℠

AWWA 125th Anniversary
1881–2006
125 Years of Safe Water

index 2005 authors

Allmann, Timothy P. 97:1:58
Amburgey, James E. 97:12:55
Amirtharajah, Appiah 97:12:55
Anderson, Marc A. 97:2:92
Anderson, Robert H. 97:7:30
Anderson, Ryan D. 97:9:70
Anderson, William B. 97:7:116
Antenucci, Jason P. 97:1:86
Arrowood, Michael J. 97:12:77
Augustinraj, Rajah 97:10:55
Balchunas, Brian M. 97:5:94
Barbeau, Benoit 97:9:82
Baribeau, Hélène 97:2:69
Barnard, Lyle, M. 97:6:88
Bonds, Richard W. 97:6:88
Boulos, Lina 97:9:70
Boulos, Paul F. 97:5:111, 97:7:104
Breen, Sean 97:6:44
Brookes, Justin D. 97:1:86
Brouckaert, Barbara M. 97:12:55
Brown, Jess C. 97:9:70
Buchanan, Barry 97:11:44
Burlingame, Gary A. 97:9:42
Byer, David 97:7:130
Calles, Jennifer 97:1:62
Carlson, Kenneth H. 97:1:58, 97:7:130
Carriere, Annie 97:9:82
Chen, Che Fei 97:3:89
Chinn, Russell 97:2:69
Cho, Jaeweon 97:5:101
Choi, Kevin Young-june 97:7:134
Clancy, Jennifer L. 97:12:64
Clement, Jonathan 97:11:84
Coffey, Bradley M. 97:12:101
Conrad, Steve 97:8:58
Cooper, C.D. 97:9:93
Cooper, Karen H. 97:8:47
Dell, Rodney K. 97:6:34
Dempsey, Brian A. 97:7:134
Desjardins, Raymond 97:9:82
Dettmer, Ann 97:8:47
Dietz, John D. 97:9:93, 97:10:98
DiGiano, Francis A. 97:1:74
Domkowski, Bob 97:4:76
Dudi, Abhijeet 97:8:66, 97:8:79
Dussert, Bertrand W. 97:7:52
Eddy, Louis 97:8:32
Edwards, Marc 97:8:66, 97:8:79
Emelko, Monica B. 97:12:101
Erdogan, Ilke 97:5:125
Esbri-Amador, Elizabeth 97:3:89
Escobar, Isabel C. 97:5:101
Evans, Matthew 97:1:62
Fleming, Kala K. 97:8:90
Fraser, Dan L. 97:1:38, 97:2:34
Garner, Stephen C. 97:12:64
Gauthier, Vincent 97:9:82
Gerke, Tammie L. 97:10:109
Gollnitz, William D. 97:12:64
Gottler, Randy 97:1:62
Grace, Nigel O. 97:3:74
Grayman, Walter M. 97:3:74
Grigg, Neil S. 97:2:58
Grimm, Michael W. 97:4:64
Gritzuk, Michael 97:5:72
Hampson, Jack 97:11:75
Harmon, Stephen M. 97:11:84
Harrington, Gregory W. 97:2:92, 97:8:90
Hayes, Troy 97:5:90
Hershey-Pyle, Julie 97:5:101
Hill, Chad 97:12:56
Hipsey, Matthew R. 97:1:86
Hobbs, Colin 97:5:101
Hoffbuhr, Jack W. 97:1:6, 97:2:6, 97:3:6, 97:4:6, 97:5:6, 97:6:6, 97:7:6, 97:8:6, 97:9:6, 97:10:6, 97:11:6, 97:12:6
Hong, Seungkwan 97:5:101
Hoover, Howard W. 97:4:80
Horton, A. Michael 97:6:88
Hozalski, Raymond M. 97:3:89
Huck, Peter M. 97:7:116, 97:12:101
Hucks, Charles E. 97:5:94
Hulsey, Robert A. 97:10:30
Imran, Syed A. 97:9:93
Irrinki, Sam 97:6:68
Jacobs, Jack 97:5:72
Jentgen, Larry 97:8:58
Johnson, Tony 97:11:80
Jones, William R. 97:5:90
Juby, Graham J.G. 97:9:70
Karanfil, Tanju 97:5:125
Karney, Bryan W. 97:5:111, 97:7:104
Kassim, Tarek A. 97:12:92
Kenel, Pamela P. 97:7:78
Kennedy, Michael 97:1:94
Kirmeyer, Gregory J. 97:7:93
Klopfer, Danny J. 97:12:50
Krabill, Jerry 97:3:62
Krasner, Stuart W. 97:2:69
Kutchins, Kay 97:9:36
Lau, Boris L.T. 97:2:92
LeChevallier, Mark W. 97:12:30
Lee, Tony 97:8:58
Leeds, Rubi 97:8:47
Lesher, Christine 97:12:48
Lin, Yi-Pin 97:12:116

Lingireddy, Srinivasa 97:5:111, 97:7:104
Linville, Thomas J. 97:5:72
Liu, Suibing 97:10:98
Long, Bruce W. 97:10:30
Louis, Garrick E. 97:10:76
Lytle, Darren A. 97:10:109, 97:11:84, 97:11:102
Mackenzie, Julee A. 97:6:76
Mahmood, Ferdous 97:3:74
Mann, John 97:10:58
Martinek, Jennifer 97:4:30
Maxwell, Steve 97:1:25, 97:3:24, 97:6:38, 97:10:34
Maynard, Barry J. 97:10:109
Mazyck, David W. 97:6:76
McEwen, Brock 97:12:64
McGuire, Michael J. 97:10:87
McKinley, J. Rowe 97:3:46
McLaughlin, John 97:5:72
McNelly, Jeffrey L. 97:9:62
McPherson, David L. 97:7:104
Means, Edward G., III 97:7:64, 97:8:40, 97:9:56, 97:10:68, 97:11:60
Mercer, Kenneth L. 97:12:116
Mergelas, Brian J. 97:2:48
Min, Joon H. 97:9:70
Miner, Ronald J. 97:12:92
Morley, Kevin M. 97:10:42
Moyer, Jack 97:5:72, 97:8:52
Murphy, Brian M. 97:7:93
Murray, Nestor 97:8:66, 97:8:79
Mutoti, Ginasiyo 97:9:93
Najm, Issam 97:1:94
Nattress, Joe 97:10:54
Naylor, William 97:1:94
Neemann, Jeff J. 97:10:30
Nelson, Peter O. 97:12:92
Noguera, Daniel R. 97:8:90
Oamek, George 97:4:30
Oliver, Gene L. 97:6:88
Olstein, Myron A. 97:6:60
Ospina, Lorena 97:7:64, 97:10:68
Pancoast, Robert 97:7:30
Patrick, Roger 97:7:64, 97:8:40, 97:9:56, 97:10:68, 97:11:60
Peckenham, John M. 97:9:62
Pimblett, James G. 97:3:74
Pintar, Katarina D.M. 97:7:116
Pleus, Richard C. 97:11:32
Pomerance, Hy 97:11:67
Porter, Joseph Jr. 97:11:53
Post, Arlene 97:6:44
Prasifka, David 97:9:70
Pressdee, Jonathan 97:12:56
Quarendon, John 97:5:90
Raftelis, George A. 97:1:41, 97:4:80
Randall, Andrew A. 97:9:93, 97:10:98
Raucher, Robert S. 97:4:90
Ray, Kristina 97:1:48
Rettie, Melanie 97:6:72
Rezania, Shahin 97:12:56
Roberson, J. Alan 97:3:66, 97:5:72, 97:10:42
Rogers, Jeffrey W. 97:10:76
Rooklidge, Stephen 97:12:92
Rouce, Tanya 97:7:60
Rubin, Scott J. 97:4:99
Runge Jon 97:10:58
Sandvig, Anne M. 97:11:84
Scharfenaker, Mark . . . 97:1:14, 97:3:12, 97:5:15, 97:7:19, 97:9:14, 97:11:23
Schlaman, James C. 97:7:78
Schlautman, Mark 97:5:125
Schlenger, Donald 97:2:40
Schlette, Theodore C. 97:4:68
Schmitt, Catherine V. 97:9:62
Schock, Michael 97:8:66, 97:8:79, 97:11:84, 97:11:102
Schramuk, Jeff 97:12:50
Schuler, Paul 97:6:56
Schwarzwalder, Jill E. 97:7:44
Segrest, Brandon 97:10:52
Seidel, Chad J. 97:10:87
Singer, Philip C. 97:2:69, 97:2:82, 97:12:116
Sklar, David C. 97:1:22, 97:11:67
Slawson, Robin M. 97:7:116
Smith, E. Franklyn 97:7:116
Smith, Harold 97:11:44
Snyder, Erin M. 97:11:32
Snyder, Karen P. 97:12:40
Snyder, Shane A. 97:11:32
Speight, Vanessa L. 97:2:82
Spivey, Neal C. 97:12:77
Steiner, Joe 97:1:38, 97:2:34
Stone, Mark 97:9:46
Summers, R. Scott 97:10:87
Swertfeger, Jeff 97:9:42
Syage, Jack 97:1:62
Szytel, Jeff 97:2:54
Taylor, James S. 97:9:93, 97:10:98
Taylor, Jim 97:9:50
Tejedor, Isabel 97:2:92
Tennant, Matthew F. 97:6:76
Tennyson, Patricia A. 97:1:48, 97:12:40
Teodoro, Manuel P. 97:4:111
Thompson, Kenneth A. 97:5:72
Tolman, Andrews L. 97:9:62
Udden, Tina 97:10:55
Underwood, Mac 97:10:46
Urquhart, Tony P. 97:1:22
Via, Steve 97:10:87
Waer, Mark A. 97:5:90
West, Nicole 97:8:40, 97:10:68, 97:11:60
Wexelbaum, Gerald 97:10:46
White, Stephanie 97:4:30
White, Timothy J. 97:5:90
Wodraska, John (Woody) 97:11:75
Wood, Don J. 97:5:111, 97:7:104
Wood, Stephanie 97:1:47, 97:5:86
Worthen, Taigon 97:6:56
Wu, Hongwei 97:11:94
Xie, Yuefeng F. 97:11:94
York, Marjorie T. 97:12:77
Zhang, Weidong 97:1:74